[133] dividing line of waters which separates the basin of the Paraguay, a tributary of the La Plata River, and the sources of the Arinos River, itself a tributary of the Amazon.

In its general aspect, the region is a sort of vast undulating plateau, falling slowly in the direction of the basin of the Amazon, with the highest points in the center and in the south (about 800 meters) and the lowest (about 350 meters) toward the north and west. Nevertheless, the traveler leaving from the south is greeted by an impressive spectacle when, after having traveled through 1,200 kilometers of high desolate land, he reaches the northwest border of the plateau, compared to the lowlands the difference in altitude is small, 100 meters at the most, but the rise is abrupt. Behind him, he leaves an interminable and sterile brush, while immediately at his feet begins, with the valley of the Gi-Parana, the no less interminable Amazon forest. This remarkable geographic frontier is also the western limit of Nambikwara territories.

Farther to the center and to the north, the aspect is different; running waters have worn ditches across the plateau which become larger in the direction of the Amazon basin. These depressions bring about differences in altitude up to 150 meters. One notices them especially in the region which extends from the Roosevelt River to the Doze de Otubro River, and they give this region a falsely mountainous aspect from which the fallacious expression "Serra do Norte" probably originates.

[134] Geological constitution conspires with climatic conditions to [5]
●132 give the plateau its desolate physiognomy. The sand, product of the decomposition of the sandstone, provides a sterile soil, and the irregular distribution of rain explains the prairie-like aspect, so characteristic of the whole region. Except for a little rain—very rare—which falls sometimes in July or August, the "chuvas de caju," one might say that the period from April to September is completely arid. On the contrary, precipitation is violent and almost daily from October to March. There are storms when the rain lasts sometimes one, two or even three consecutive days. During the rainy season the temperature rises; 42 to 44 degrees[1] during the day, cooler at night, with a sudden and brief shower at dawn. But abrupt variations of temperature rather characterize the dry season, probably because of intense nocturnal radiation. It is not rare, at this season, to go from a daytime maximum of 40 degrees to a nocturnal minimum of 8 or 10 de-
[291 313] grees. The Indians, who live completely nude, sleep on the ground, and know nothing of the use of coverings either of cloth or fur, suffer cruelly from this circumstance.

[1] [i.e. degrees Centigrade.—Analyst]

mules. During the height of the dry season in [132] July his mules died of starvation, for during this period horses and mules must be given at least a pint of maize a day to keep them alive. Just before I left, the miner was willing to sell his emaciated oxen and equipment and leave. The best able to withstand the hardships are the missionaries who come as permanent settlers with adequate stores, put up their buildings, and plant small fields of manioc on the bottom lands.

A brief description of the approximately 400-mile truck journey from Cuiabá to Utiarity will provide the reader with an impression of this part of Mato Grosso. As no regular freight or passenger service exists north of Cuiabá it is necessary either to hire a truck or to wait until someone else plans a trip and to join the party. With gasoline costing one dollar (US$1) a gallon, trips of this length are beyond the means of merely inquisitive travelers, and even to anthropologists with expense accounts, charges of this nature may lead to embarrassing questions. Hearing that two American missionaries were negotiating a trip to Utiarity we joined them by paying a part of the expense.

Thus one afternoon Kaoro Onaga and I climbed on top of one of the two overloaded trucks and headed northwest. The trucks were owned by a Cuiabano nicknamed João Tapuya owing to his Indian ancestry. Being an owner of two trucks, he belonged to that class of people who believe it undignified to work with their hands. Each truck, therefore, had a driver and each driver had an assistant and two loaders; thus, besides the owner, there were 8 men to operate two trucks. Among the passengers, besides myself and my student, there were the two American missionaries, Rev. Lawrence W. Buckman and Rev. Robert Meader, Buckman's wife and 3-year-old son, two other women with children-in-arms, and some half dozen men headed for various points on the way. It was up to each person to find his place on the load and to make himself as comfortable as possible among the boxes, sacks, and sheets of corrugated iron, which, with each jolt on the rutted dirt road, shifted position.

That evening we arrived in Rosario some 90 miles north of Cuiabá. On entering the town we

132
134 The soil here[1] is sandy and the rainfall insufficient
to support a forest. The vegetation consisted of
136 stunted piqui, mangabeira, fruta de lobo, lixeiro,
137 and other gnarled cerrado trees with the surface
sparcely covered with bunches of wiry grass and
other drought-resistant plants. During the whole
day we saw only four deer and two rheas, which
gives some idea of the poverty of the area. This
000 is public domain and apparently unwanted by
stockmen owing to its poor soil and lack of water.
By now we had left the telegraph line, which
crosses unbridged rivers, and were winding around
the headwaters of the streams. That night we
camped at Sucuruina where two palm-leaf-cov-
ered sheds, left by "tropeiros," provided some
shelter from the drizzling rain.

133 The following day the skies cleared and from the
tops of the folds in the plateau we obtained
137 magnificient views of the great plain. What few
312 trees could be seen were no more than 5 or 6 feet
high. A curious phenomena seen along the plateau
are the patches of forest of 5 to 10 acres in extent
which appear to grow straight out of the semi-
desert. Evidently ground water comes near the
surface in these spots, permitting the growth of a
genuine forest. Another interesting sight was the
birth of rivers. In the shallow valleys formed by
the folds, one could first see swampy ground, then
tall grass, then bushes, then short trees, and
finally the tall trees forming a "galeria" forest
which bordered a river winding its way northward
to form one of the headwaters of the Amazon
system.

At 4 o'clock we arrived at the Sacre River where
the trucks had to be ferried across on a raft.
As this operation took until dark we camped for
the night in some vacant buildings left by rubber
workers. Before leaving next morning we visited
the waterfall (Salto Bello) about 200 yards below
the ferry where the Sacre River tumbles over a
sheer drop of about 180 feet. Early in the after-
noon we reached the Papagaio River and after
ferrying the trucks across we were in Utiarity.
Both the Sacre and the Papagaio are deep clear
streams about 100 yards in width at the ferry
crossings. These headwater streams are evidently
fed by underground water, for their level does not
vary appreciably during the year.

000 Utiarity, which was to be our base camp for the
remainder of June and for July, is built on an

1 [on the Serra dos Parecis. - Analyst] [p. 83(B)]

headwater streams. The deep clear streams make fishing with timbó difficult. Game in the forests and on the plain is scarce. Yet by exploiting all the resources of the area the Nambicuara are able to survive. In contrast to the other tribes reported in this monograph the Nambicuara have the broadest resource base, as the list of their resources in Appendix 1 indicates.

The Eastern Nambicuara occupy the high plateau between Utiarity and Vilhena. At Utiarity the altitude is 442 meters and at Vilhena 665 meters. The dry season extends from May to September. Except for occasional south winds, which bring a cold drizzling rain for a day or two, the season is clear, cool, and dry, the daily temperatures ranging from 60° to 80° F. During this period the grass withers, the livestock of the white men having to subsist on shrubs and what fodder the owners can provide. Horses and mules, particularly, suffer during these months. In August the Indians burn the dry grass so that with the first showers new grass can grow out and attract the deer, which the Indians can then hunt.

The dry season, which the Nambicuara call *kwénkisu*, is the most difficult. By the end of June they have consumed the manioc, maize, beans, and other crops which they have planted. During July and August they subsist on palm nuts, combarú beans, fruta de lobo, snakes, insects, fish, and whatever animals they can kill on the plateau or in the forest. The rainy season (*wahíasu*) is divided into periods depending upon the fruits as they come into season. September is known as *yaddádunsu*, for during this period the people depend upon the jaboticaba fruit. October and November are called *ya'awadjítsu*, for during these months the bacaba palm nut ripens. December and January are termed *dítsu*, or piqui time. February and March are known as *cutúsu*, which appears to cover a variety of berries and small fruits. April and May are termed *daugadítsu*, as many fruits and nuts come into season, particularly, the cashew nut. During these months the garden crops also come in, giving the Nambicuara a short period of abundance.

SETTLEMENTS AND SHELTERS

Each of the four Eastern Nambicuara bands has a defined area within which it hunts, fishes, collects, and grows its crops. These territories in-